

OUTLOOK

March 9, 1989

Special Enhancement
Supplement

Kirwan To Discuss UMCP Enhancement Plan at Senate Meeting

Enhancing the College Park

Campus:

An Action Plan



The University of Maryland at College Park

March 1, 1989

DRAFT

The Enhancement Plan for College Park, mandated by the passage of Senate Bill 459 last year, has now gone through a number of revisions and a draft is ready for presentation to the campus.

An unprecedented document that sets an agenda for action on new initiatives and top priorities for enhancing the campus over the next five years, the latest draft of the plan will be presented to the Campus Senate by President William E. Kirwan at a meeting on Thursday, March 9 starting at 3:30 p.m. in the Armory. At that time, Kirwan will review the plan and welcome comments from members of the senate. The campus community is invited to the meeting.

The impetus to create the plan, one of the most ambitious planning documents ever to be produced on the campus, came from Senate Bill 459, approved by the State Legislature when the University of Maryland system was reorganized. Naming College Park the state's flagship campus, the bill states that College Park shall be provided "with the level of operating funding and facilities necessary to place it among the upper echelon of its peer institutions" and calls for the campus to prepare an enhancement plan to begin to accomplish this.

The actual work to create such a plan began last September when Kirwan appointed a core group to produce a draft report. After the initial document was assembled, a Steering Committee was formed. This group proceeded to get input from the campus community and assembled a new draft report based on the mountains of information received from all major campus units. After several months of work on the part of many individuals, the enhancement report now has gone through several revisions. Volume I—the latest draft of the enhancement plan—is reproduced in its entirety below. Volume II containing specific funding requirements will be released soon and will be reported on in Outlook when it becomes available. ■

—Roz Hiebert

INTRODUCTION

This document presents a strategy, a plan of action for elevating the University of Maryland at College Park to the top tier of American public universities by the year 2000. In the plan, we describe specific initiatives that we believe are necessary in order for College Park to become a premier educational institution, a national center for scholarship, a valued source of public service, and a vibrant and inclusive academic community.

In selecting the specific objectives set out in this document, we have made difficult choices that reflect several years of intensive planning and priority setting. The plan draws on the philosophy and recommendations of Malcolm Moos in *The Post-Land Grant University: The University of Maryland Report* (1981) and on the searching self-evaluation of our own 1986 Middle States Accreditation Report. It reflects comprehensive campus-wide studies that have set new requirements for undergraduate education, have committed the campus to improving the status of minorities and women, and have established targets for computer workstations and library growth. And it incorporates the deliberations of the faculty,

students, and administrators who comprise the Provost's Academic Planning Advisory Committee, the campus' Priorities and Finance Committees, and the Enhancement Plan Steering Committee.

Planning and priority setting are a dynamic process, and this plan is neither the beginning nor the end of that process. The program initiatives presented here are central to our mission and are consistent with our current strengths. Likewise, our proposed service initiatives reflect those needs of the State that we are currently best suited to address. But no amount of deliberation can anticipate the changing needs and opportunities that will present themselves in the years to come, and we must retain the flexibility to pursue new directions. Our primary goal is to create a university with the expertise, strength, and self-confidence to respond thoughtfully and effectively to the new problems and new opportunities of the twenty-first century.

Our vision of academic excellence is shared by many institutions, but few of them have a realistic hope of achieving it. We do. The State of Maryland has recognized that one key to its future is a strong state university, funded at a level to match its best

peers. We benefit as well from our location in the Baltimore-Washington corridor, offering an unparalleled combination of cultural, scientific, governmental, and natural resources. In the past we have taken advantage of these resources to achieve programs of national prominence in selected areas.

Now we have the opportunity to use our talents in combination with enhanced State support to become a university of the first rank.

We begin our drive for distinction from a position of considerable strength. The accomplishments of our faculty over the past several decades have been impressive. College Park has recently moved to fourteenth among all public universities in total amount of research and development expenditures, putting us within reach of the top ten. We currently rank ninth among public universities in the number of distinguished awards and prizes won by our faculty, and we can now compete effectively for the best scholars in America. Moreover, recent national surveys have rated about a dozen of our academic programs as among the ten best in the country with another dozen cited as being on the threshold of distinction.

Better programs attract better students. Grades and test scores of entering UMCP freshmen are higher every year, and at a time when the number of college-bound students is declining nationally, applications for undergraduate admission to College Park have been rising impressively, 35 per cent in the past three years. At the graduate level, applications have risen 27 per cent over the same period and enrollment has increased almost 10 per cent. These are strong indicators of our growing prominence. We have also gained distinction through our commitment to diversity. This past fall, 13.6 per cent of entering freshmen were black students, the highest percentage among all institutions that are members of the Association of American Universities (AAU). We also have the highest percentage of black faculty and black graduate students among AAU institutions, although these numbers still fall well below our goal.

The State of Maryland has recognized that an important key to its future is a strong state university, funded at a level to match its best peers. The legislation reorganizing higher education recognizes our accomplishments and offers us a challenge and an opportunity: to transform a very good university into a truly great one. Senate Bill 459 mandates the enhancement of College Park as "the State's flagship campus with programs and faculty recognized for excellence in research and the advancement of knowledge."

The campus is ready for this step. To become a national center of excellence, to be ranked among the nation's leading comprehensive research universities, and to meet our responsibilities as the flagship campus of a major state university system, we have set four goals: excellence in education, excellence in research, excellence in service, and excellence in the creation of an academic community.

Because our primary responsibility is education, our first goal is to provide our undergraduate and graduate students with a learning environment of

the highest caliber. When that goal is achieved College Park will be a magnet not only for the most talented students in the State, but for students from across the nation and around the world as well. An equally important commitment is that our student population should include a large and increasing representation from groups that have not been well served by higher education in the past.

A second goal is to develop our research enterprise until it is of such quality that the campus will be universally recognized as a national and international center for scholarship. This university will grow as a source of new knowledge and intellectual talent in the arts and humanities and in the social, physical, and life sciences. Likewise we will continue to build a base of expertise in the professional fields, including engineering, business, education, journalism, and those emerging fields where art, science, and technology intersect.

Service to the State's people, business, and government is a distinguishing characteristic of a land-grant university. As Maryland's land grant institution, our third goal is to help define and meet the needs of commerce, schools, communities and local and state governments. We will continue to address, in new as well as traditional ways, our important agricultural and environmental concerns. We aspire to become the State's first choice for technical assistance to businesses and government agencies; a catalyst for technological innovation and economic development; a provider of valuable services and information through educational outreach programs; a partner in our smaller and larger communities' efforts to solve social problems; and a continuing source of cultural enrichment. Such service will be an increasingly important part of the mission of College Park.

Our final goal is to create at this campus an enduring community, linking the past with the present and the future. A great university thrives on a strong sense of community among faculty, staff,

students, alumni, and all the citizens who support it and gain from it. We depend upon and must actively nurture the support of these groups. We will not only ask for their commitment to our goals, but we will also try to meet their diverse needs through a high-quality working environment, efficient support services, and appropriate programs that reach out to alumni and friends.

Excellence has its price. The State recognizes this fact; Senate Bill 459 undertakes to "provide the College Park Campus with the level of operating funding and facilities necessary to place it among the upper echelon of its peer institutions." The campus is willing and able to contribute its share of the cost. Our faculty have been increasingly successful in the competition for contracts and grants, and with improved facilities and support services, the awards from outside sources will continue to grow. The campus has fared less well in attracting endowments and gifts. Fund raising and development activities, such as the Campaign for Maryland, have only recently begun. We realize, as other successful public institutions have, that an increasing portion of our resources must come from private contributions, a source we can tap more effectively as the citizens of Maryland gain increased pride in their university. Even with success on all these fronts, strong and sustained enhancement by the State is critical to our plans. But we truly believe in our vision, and we are willing to share in the responsibility in generating the resources required for the full realization of our aspirations.

The plan is divided into two parts. Part I describes a set of initiatives to be undertaken within the next five years and identifies the means by which we will measure our progress toward our ultimate goals. Part II provides a parallel and detailed analysis of the costs of these initiatives. We hope the plan conveys to our readers the excitement and sense of opportunity that have captured the imagination of the College Park community.

CHAPTER 1: PROVIDING AN EXEMPLARY EDUCATION

The University of Maryland at College Park is the seventh largest campus in the country with nearly 30,000 undergraduates and over 8,500 graduate students. Our programs affect more students than those of any other higher educational institution in the State. Students choose from among 125 baccalaureate majors and 80 masters or doctoral programs. The consequences of enhancing the educational programs at College Park are substantial and far-reaching.

In developing our status as an increasingly distinguished educational institution, our objectives are to:

- provide a rich undergraduate curriculum that introduces students to broad areas of knowledge and stimulates their intellectual curiosity and creative talents;
- enhance the coherence and depth of study in the student's major field;
- offer graduate programs that are consistently ranked among the best in the nation, and that provide the benefits of study with leading scholars, scientists, artists, and professionals;

- create a campus environment and academic community that foster intellectual and personal growth, appreciation for diversity, and understanding of differing cultures; and
- provide opportunities for minorities and other groups that have not been well served by higher education in the past.

The achievement of these objectives requires action. We describe below some specific steps the campus intends to take in order to realize its aspirations for excellence in education.

UNDERGRADUATE EDUCATION

During the past year the campus completed a full-scale reevaluation of undergraduate education at College Park. In the spring of 1988 the Campus Senate approved and the Board of Regents endorsed the Pease Report, *Promises to Keep: The College Park Plan for Undergraduate Education*, a

comprehensive study that proposes significant changes in the undergraduate experience, beginning at the time students enter the university and continuing through their final semester. It calls for more coherence in general education requirements, greater rigor and depth in major programs of study, better opportunities for faculty and student interaction in and out of the classroom, and improved student support services, such as advising and career counseling.

The Greer Report, *Making a Difference for Women* (1988), adds an additional perspective, proposing a major curriculum development program aimed at incorporating the contributions and experiences of women into courses central to undergraduate education. It calls for programs designed to acquaint faculty and staff with subtle forms of gender and race bias that may affect classroom interaction and inhibit learning. And it proposes that special programs be developed to encourage the participation of women in fields in which they have traditionally been underrepresented.

These major planning and priority setting efforts, together with important studies on honors students

and advising, form the basis of the improvements in the undergraduate curriculum that are described in the initiatives that follow. Our reforms in undergraduate education will make little difference, however, if we cannot attract and ultimately graduate a diverse and talented student body. Our second set of initiatives in undergraduate education describes our proposed recruitment and retention efforts.

Improving the Educational Experience for Undergraduates

Increasingly, the nation's attention has been drawn to a perceived crisis in secondary and higher education. American students fare poorly in international comparisons of achievement, particularly in mathematics and science, and shortcomings in curriculum are often cited as the principal culprit. National reports warn of growing mediocrity in college education and suggest reform aimed at providing an undergraduate curriculum with more rigor and intellectual excitement, and with better opportunities for students to acquire breadth of knowledge in a coherent academic discipline.

Consistent with these concerns, the Pease Report proposed several specific improvements in the curriculum. The following changes are among the more significant that the campus plans to introduce:

- a pilot program of freshman seminars devoted to the study of major books and fundamental concepts, taught by a full-time faculty member in classes of no more than twenty students;
- a coherent set of courses from the liberal arts and sciences that not only provides basic knowledge about the primary disciplines but also exposes students to the diversity of knowledge in the arts, humanities, natural and social sciences;
- a general education requirement of at least one course specifically focused on issues of ethnicity, race, gender, or non-western perspectives;
- a capstone course that requires students to synthesize learning from different parts of the curriculum, draw upon a deep understanding of their majors, think critically, exercise judgment, and communicate the results of their work; and
- a rich array of courses for honors students in an expanded honors curriculum.

In addition to changing the substance of undergraduate offerings, we will give greater attention to teaching methods and rely less on large lecture classes. The campus has developed specific plans to help students become active participants in the learning process. We have already begun to:

- reduce undergraduate enrollments by twenty per cent, in accordance with our five-year plan;
- provide a summer program for development of faculty expertise in the scholarship on women and gender, and for the incorporation of the perspectives and contributions of women into the curriculum;

and we plan to:

- reduce the student-faculty ratio to a level found at the best of our peer institutions;
- increase incentives for faculty involvement in undergraduate teaching, with substantial increases in the funds available for innovative course development using new educational technologies; and
- create a Center for Teaching Excellence, one of whose responsibilities will be to improve classroom techniques.

Innovative teaching often requires the use of new technology in the classroom. Effective implementation of these changes will require modernized laboratories and classrooms equipped with up-to-date instructional equipment and materials. Chapter Two outlines our needs for such support for both teaching and research.

Recruiting and Retaining Maryland's Best Students

Most college graduates obtain their first jobs within 100 miles of their undergraduate institutions. Attracting Maryland's best students to College Park means that these talented people will be more likely to contribute to their State's cultural, civic, and intellectual life. At present, 80 per cent of the state's Merit Scholars attend college out-of-state; the loss of talented human capital is enormous.

As is shown by the substantial increase in the number and quality of student applications, we have made considerable progress in our recruiting efforts. We must still strive to increase the diversity and improve the academic profile of our entering freshmen classes. Over the next decade, the campus will seek to admit students of diverse talents who have challenged themselves during their secondary school careers. In our admission practices we will give special consideration to students who have taken honors, gifted and talented, and advanced placement courses. We will also reserve space for students who have had limited success by traditional measures of performance but whose potential is high.

Successful recruitment endeavors will require scholarship money. At present, the campus has about 50 per cent of the amount of student financial aid available at peer institutions. Enhanced recruitment efforts will also require us to communicate more effectively the strength of our programs and the many opportunities, both in and out of the classroom, that College Park has to offer. As part of our recruitment initiatives, we intend to:

- provide 100 four-year, full-expense Francis Scott Key scholarships for academically talented freshmen from all races and backgrounds;
- increase the stipend of Banneker scholarships for high ability minority students, from tuition-only to full expense awards;
- reach out to junior and senior high school students through expanded oncampus visitation programs, including a summer science

and mathematics program to interest women and minorities in non-traditional fields;

- improve communications with the population of potential applicants through a new electronic information service to high schools and community colleges throughout Maryland; and
- enhance the Maryland Alumni Admissions Program, encouraging the alumni participation in student recruitment.

In the past, College Park's retention rates have averaged ten to fifteen per cent below the rates of the best of its peers; fewer than half of the freshmen who come to College Park graduate from the University within five years. This rate of loss is unacceptable. The reduction in size of the undergraduate student body and the steady increase in the academic quality of students admitted should increase both retention and graduation rates.

Much of the problem with our educational environment stems from a lack of individual attention, a characteristic of the impersonal nature of a large campus with high student-faculty ratios. Due to inadequacies in advising, many students' educational needs do not receive the personal scrutiny they deserve, nor do all students receive sufficient counseling to develop clear and realistic career goals. Our initiatives in this area are designed to make the campus less impersonal and to provide better academic guidance and career counseling. These initiatives include:

- the addition of 75 full-time advisors to make frequent advising available to all undergraduate students;
- an expanded summer advising and orientation program, with increased participation by faculty members, for entering freshmen;
- increased resources for campus-wide undergraduate retention efforts, with particular emphasis on the retention of minority students;
- expanded counseling, support, and financial aid services for minorities;
- expansion of pre-professional advising, internships, and career workshops, with particular attention to minorities and women considering careers in mathematics, the sciences, and engineering; and
- development of a Transfer Student Resource Center to provide individual orientation for incoming transfer students and information resources for all students.

Quality of Student Life

The quality of intellectual life outside the classroom affects the vitality of the campus. The quality of support programs and extra-curricular activities affects the campus' appeal to students. And the attitude that the institution engenders towards cultural and ethnic diversity helps to shape its sense of community.

The College Park campus suffers from a perception that it is a large and impersonal place where students have limited opportunities for meaningful

interaction with faculty or with other students outside their disciplines. The size of the student body and the large number of part-time and commuting students have contributed to this image. Reducing the size of the undergraduate student body will, as mentioned above, address some of the problems inherent in a large urban campus. Increased financial support for students will reduce their need to seek part-time employment, allowing them to pursue their studies full-time and to take full advantage of the intellectual and cultural amenities a great university has to offer.

There are additional actions we can take that will make College Park a more intellectually stimulating and welcoming environment in which students can live, work, and grow. Our plans cover a broad spectrum, and many emphasize the interaction of faculty and students. These initiatives include the following:

- a series of department colloquia and campus-wide seminars to provide opportunities for dialogue between faculty and students from across the disciplines;
- research support for undergraduates;
- enhanced programs providing leadership and service opportunities for undergraduates;
- the creation of a Student Honor Council, with its own hearing room and secretarial assistance, to help foster a student-based and campus-wide commitment to academic integrity;
- an honors dormitory;
- 1a Multicultural/International House, an academic "living and learning" residence hall;
- development of a better ambiance in all of the dormitories through the creation of quiet study areas, reading rooms, tutorial services, and lecture series;
- improvements in facilities and additions to staff in two key student support services, the Health Center and the Counseling Center, which are UMCP's primary physical, mental and emotional health units; and
- continued supervision of athletic programs, both intramural and intercollegiate, to insure their full compatibility with the University's academic mission.

Accountability

The citizens of Maryland expect College Park to make good use of enhancement support, and the campus will be prepared to show that these funds are used wisely and well.

Some signs of our success will be intangible: the sense of intellectual excitement, the liveliness of faculty and student interactions, and the depth of the campus' interests and concerns. But we will rely on more tangible measures of success as well.

For the next five years we propose the following goals:

- the high school grade point average of admitted students should rise from 3.0 to 3.3, with

comparable increases in scores on standardized tests;

- the percentage of black students in the entire undergraduate student body should increase to 12 per cent.
- the numbers of National Merit and National Achievement Scholars should increase by 40 per cent;
- the five-year graduation rate for majority and minority students should increase by 15 percentage points.

GRADUATE AND PROFESSIONAL EDUCATION

By the year 2000 almost half of today's college professors will have retired and there will be too few trained scholars to replace them, since there has been a serious decline in the number of American students who choose to continue their education at the graduate level. But it is not just in college teaching that the shortfall will be felt. Even in those industries in which we are now preeminent, such as computers, we are in danger of losing the competitive edge. The future of science, technology, scholarship, education, and business in this country is at risk.

The University of Maryland at College Park, together with other leading graduate schools, has a responsibility to help reverse this dangerous trend. We must actively recruit graduate students from all segments of the population, provide them with adequate support, and engender in them a sense of the excitement of research.

Students are influenced in their choice of graduate school by numerous factors, the most important of which are the quality of the faculty and the research facilities, which will be discussed in the next chapter. In this section, we discuss other factors that attract able graduate students.

Recruiting the Nation's Best Graduate Students

Today, financial support for education is limited. About half of all federal student aid for undergraduates is now in the form of loans, making the additional cost of graduate school a financial burden intolerable for many talented youths, especially those from disadvantaged backgrounds. The national shortage of graduate students and the nation's poor record in attracting minorities to graduate school are compelling reasons for increasing the amount of financial support available.

In 1982 the College Park campus had enough fellowship money to award 45 one-year fellowships of \$1000 and 11 three-year fellowships of \$4500. Since then the campus, through its own reallocations, has developed a fellowship pool that currently supports 180 full-time students at \$8200 per year.

But impressive as the improvement has been, this number of fellowships compares poorly to the 300 to 500 available at peer institutions.

To help with graduate student recruiting, we plan to:

- triple the existing pool of fellowships to a total of 500, so that 10 per cent of the total number of full-time students can be supported from this source;
- increase the number of teaching assistants by 10 per cent;
- maintain fellowship stipends at a competitive level and keep pace with the cost of living in the metropolitan area;
- increase the number of fully funded fellowships for minorities from 85 to 150; and
- acquire — through renovation, construction, or lease — additional graduate housing units to relieve the shortage that discourages potential students from enrolling at College Park.

Increasing Diversity in the Graduate Student Body

Given the impending shortage of young scientists and scholars, we cannot afford to discourage any of our young talent. In many fields, the most promising solution to the crisis lies in increased participation in graduate education by hitherto underrepresented groups — minorities and women. Yet in the past we have not done well by these groups, particularly black students. To attract these students and to reverse the national decline in the numbers of blacks attending graduate school, we must meet their special needs and remove the obstacles that often prevent them from completing their degrees.

To this end, the campus established in the fall of 1988 an Office of Graduate Minority Student Affairs. The following initiatives have been planned by this office for the purpose of recruiting talented graduate students and helping them with the critical transition between undergraduate studies and graduate or professional education. The office will:

- encourage our own undergraduate minority students to apply to graduate school through informational programs on graduate study opportunities and financial aid;
- support a program of campus visits each year by 200 prospective minority students, together with their sponsoring faculty and administrators, from targeted minority colleges and public institutions, including specifically the traditionally black colleges of Maryland; and
- sponsor fully-funded summer "bridge" programs to enable as many as 30 promising undergraduate minority students each year to experience graduate life and conduct research with UMCP faculty members.

Accountability

We expect our success in strengthening our graduate programs to be reflected in:

- the number of prestigious fellows admitted as graduate students;
- the number of distinguished positions obtained by our PhD recipients;
- the proportion of graduate students among the student body should increase from 21 per cent to 25 per cent;
- the proportion of black graduate students should rise from 5 per cent to 12 per cent;
- the number of PhD's awarded annually should increase by 10 per cent over the 1988 level of 364, and the number awarded to blacks by 25 per cent over the 1988 level of 24.

CHAPTER 2: BUILDING A NATIONAL CENTER OF ACADEMIC EXCELLENCE

Nations depend on their educational institutions to make the fundamental discoveries that advance society, to train the minds that will be responsible for future intellectual and technical achievement, and to create the intellectual climate that sustains civilized values.

The University of Maryland at College Park counts itself among the nation's vital research universities, with a goal of joining the top tier. We have a tradition of outstanding research and scholarship in numerous disciplines, and a special mandate to serve as the State's primary center for the advancement of knowledge. In accordance with this mission, our goals are to:

- foster a quality of scholarship in core disciplines that creates a consistent level of excellence across the campus;
- build on historic strengths and exploit more effectively the advantages of our location;
- develop research programs of the highest quality in areas of particular importance to the State; and
- create a research environment at College Park that attracts and supports the nation's finest scholars, teachers and researchers.

A public university that is a center of intense, creative scholarship is not an isolated island of knowledge, but a source of intellectual, cultural and technological expertise that brings vitality to its community. Success breeds success. The better our reputation, the more we will be able to recruit first-rate faculty and students, the more attention our programs will receive from other outstanding scholars and from the community, the more funding agencies will support our endeavors, and the more business and industry will seek our expertise and assistance. Our purpose here is to define the steps we must take to create a research university worthy of our present accomplishments and our future aspirations.

The development of an academic institution is synergistic, built on the productive interaction of all of its parts. Consequently, the development of the core - the traditional liberal arts and sciences - is interdependent with the development of the rest of the campus' programs. For convenience of exposition, however, our initiatives can be presented in two sections: those relating to long-range enhancement of the core disciplines, and those relating to specific areas that have been targeted for enhancement in the immediate future.

STRENGTHENING OUR CORE PROGRAMS

A great university is built around an intellectual core in the liberal arts and sciences. These disciplines are the heart and soul of the institution, and their quality determines its place in the scholarly and scientific communities as well as in the esteem of the general public. At Yale and Harvard, for example, there are outstanding law, business, government, music and drama schools, but the fundamental reason for the international preeminence of those universities is the distinction of their programs in such areas as physics, chemistry, economics, philosophy, history, and literature. It seems clear, indeed, that the existence of these core programs sustains the others; a university with a strong core is able to attract the best students and faculty and to serve as a resource for society as a whole. Moreover, the liberal arts and sciences carry the primary responsibility for undergraduate education, and College Park's renewed commitment to its undergraduates presupposes broad enhancement in this area.

It is our intention, therefore, to use a significant proportion of our enhancement funds to raise our core disciplines to a higher level of excellence and to make a selected number of these programs among the very best in the nation. The nature of the process makes it impossible to specify detailed short-term goals. It depends upon college deans working with their department chairs to identify units that can be dramatically improved, both by long-range planning and by taking advantage of targets of opportunity that may unexpectedly arise. Success in this area cannot be easily quantified, but will be measurable in the increased prestige of our programs among our peer institutions, both in general kinds of recognition and in such crucial practical matters as an increased willingness to recommend that their students pursue graduate work at College Park.

SPECIFIC PROGRAMMATIC INITIATIVES

In addition to a long-range commitment to enhancing its core programs, the campus regularly selects particular areas for special enhancement. In 1983 it established an Academic Planning Advisory Committee (APAC), a planning body consisting of faculty, administrators, and students, to advise the Provost and President on academic priorities and reallocation of resources. Based on APAC recommendations, the campus developed a

plan in 1985 to reallocate internal resources in order to enhance selected programs. Choices were based on several factors, including the quality of existing programs, special resources in the area, and the needs of our society.

It should be noted that reallocation has had to take place within highly confining constraints. We have an obligation to support programs in which our undergraduate students enroll heavily, even when these are not among the ones we would want to emphasize for research development. There are external budgetary constraints as well. The State retains 2% of the salary and wage budget in the form of mandated "salary savings." In addition the System Office of the statewide University of Maryland assesses a tax of 0.7% on all non-state revenues (for instance, external grants and contracts), which amounted to \$1.2 million in fiscal year 1989.

Despite these constraints, an impressive set of resource and program redirections has been accomplished. Following review and endorsement by the campus Senate, three academic programs have been eliminated since 1986, a fourth is under consideration for elimination, and five areas of concentration have been recommended to the Maryland Higher Education Commission for removal from our program inventory. Selected colleges have reverted a dozen faculty positions in the past three years, and these have been redirected to areas of higher priority.

Through reallocation the campus has increased the number of fully funded graduate fellowships from 17 in 1984 to 180 in 1989; has redirected more than \$1 million since 1985 to the library's collections budget; and has constructed a \$15 million research building. In addition, a number of academic programs have been targeted for enhancement. A program in linguistics was started in 1984 and has already become exceptional; the College of Journalism became a priority; and in a recent study by the Gannett Foundation was listed as one of the eleven "exemplary programs" in the United States; the Center on Aging received enhancement funds and today enjoys a national reputation.

Currently, four areas have been recommended as focal points for substantial enhancement over the next five years. They do not represent the full range of our future endeavors, but rather some specific choices that respond at the present time to particular opportunities and promise significant rewards for the wider community as well as for the campus.

Biological and Environmental Sciences

Revolutionary developments have drastically changed the nature of these scientific fields. Modern biology will remain a dominant area of inquiry well into the twenty-first century, with the potential to radically improve the ability to detect and cure diseases, produce food, manufacture biological materials, and protect the environment. Because of the enormous potential for enhanced quality of life, universities with outstanding biology programs will serve as a significant catalyst for economic development.

The following planned actions will enhance teaching and research programs in the biological and environmental sciences and will include: (1) increased support for the development of the molecular and cellular biology program contributing to related research in areas such as agricultural biotechnology; (2) enhancement of our environmental and natural resources programs, with emphasis on water quality, pest management, and conservation biology, particularly from an evolutionary and ecological perspective; (3) a concerted effort in the neurosciences, studying aspects of the brain and nervous system from a range of approaches—cell and molecular, biochemical, morphological, physiological, and behavioral.

Technologies for the Twenty-First Century

Capitalizing on a long-standing record of achievement in physics, engineering, and computer science, as well as high-caliber work in associated academic and business fields, the campus proposes to devote a share of its enhancement funds to develop its interdisciplinary high-technology research programs. Our efforts will emphasize new applications of basic discoveries in the physical, engineering and computer sciences and will incorporate aggressive means of transferring the campus' technical capabilities to State business, agriculture, and industry. We already pursue collaborative research with Maryland-site corporations such as Vitro, General Electric, Digital, Martin Marietta, Westinghouse, and IBM; our proposed programs will greatly extend such connections.

Our initiatives will focus on three areas: (1) advanced electronic materials, with particular input from our newly-formed Center for Superconductivity Research, leading to developments in such fields as infra-red opto-electronics, medical diagnostics, and energy transmission; (2) computer-integrated manufacturing and design, with attention to technology management and manufacturing entrepreneurship; (3) computer and information sciences, with emphasis on software and systems engineering, artificial intelligence, expert systems and parallel processing.

Public Policy Research: State, National and International Issues

The campus is uniquely situated to become a major center for both domestic and international public policy study and analysis that has a significant bearing on government decision-making at the state and national level and in international affairs. It already has significant policy-oriented pro-

grammatic strength in public affairs, history, journalism, economics, criminal justice and political science.

Our efforts in this area will involve both historical and contemporary perspectives and will include enhancement of the foreign languages that are essential for international scholarship. The decision of the National Archives to locate its \$250 million primary research center, "Archives II," at College Park adds an important dimension to our efforts. The Archives will bring to our campus the nation's most comprehensive set of documents covering virtually every facet of American public life, a resource of incalculable value to scholars and researchers.

Our initiatives in policy studies include: (1) a comprehensive program focusing on policy issues of particular importance to the State of Maryland, including, public finance, environmental, and land use policy, which have profound consequences for the State's urban and agricultural communities and for its primary natural resource, the Chesapeake Bay; (2) a comprehensive program focusing on U.S.-Soviet relations in areas ranging from nuclear arms control and disarmament to technological assistance and bilateral trade; and (3) enhancement of the Center for International Development and Conflict Management for its research on protracted ethnic and social conflict.

The Arts

Most universities recognize the value and place of the creative and performing arts as part of a full undergraduate experience. The pleasures of visual and graphic design, an enhanced appreciation of musical expression, the satisfactions gained through group theatrical or dance productions — these are benefits a university can offer to many of its talented and interested students.

But like a select few other universities, we at College Park are in a position to accomplish significantly greater achievements in the arts, achievements of such high caliber and across so wide a spectrum that this University could become nationally and internationally renowned for excellence in the arts. The requisite conditions, here as elsewhere, are a skilled faculty, a rich resource base, and a critical mass of outstanding student talent. We have already shown in selected areas how the focusing of resources can effectively lead to excellent results. Our recently established Museum Research Assistant Program, for example, has capitalized upon the strength of our Art History faculty and the unsurpassed resources of the capital region in order to recruit the nation's finest students to study at College Park. Similar strategies in music, the visual arts, and creative writing can achieve parallel successes. The many truly gifted students of this region, long the object of intensive recruitment by leading art institutes and schools of music elsewhere, can instead be recruited to stay home.

In the near term, enhancement in the arts will require large increases in the number of full cost scholarships, creative use of tuition waivers, special funding arrangements for affiliate faculty artists and performers, additional fellowships in the graduate orchestral, voice, and opera programs, and funding for special recruitment efforts. In succeeding years, in connection with the State's multi-year capital budget, it will be essential to create a showplace educational center for the performing arts. The

achievements that lie within our reach could serve to secure both the reputation and the reality of a flourishing center for the creative and performing arts at College Park.

COLLABORATIVE RESEARCH EFFORTS

The location of the College Park campus offers opportunities for fruitful collaboration with the many cultural, scientific, and governmental organizations in the Baltimore-Washington area, such as the National Institutes of Health, the Baltimore Museum of Art, the Folger Shakespeare Library, and the Smithsonian Institution.

Also of value are the joint programs which College Park enjoys with other campuses of the University of Maryland system, including the UMCP/UMBC engineering program, the UMCP Public Affairs/UMAB Law School interdisciplinary program, and the graduate program in Marine-Estuarine Environmental Sciences shared by the College Park, Eastern Shore, and Baltimore County campuses together with Frostburg State and the Center for Environmental and Estuarine Studies.

There are many benefits from this collaboration. University research programs benefit directly; students are exposed to a wider pool of expertise and gain important internship opportunities; the State receives increased grants and contract income; and the general public gains from expanded cultural and scientific opportunities.

For these reasons, the campus seeks to:

- expand the number and range of partnerships and joint programs with local, state, and federal agencies and other research-oriented organizations in the area;
- develop faculty exchanges between College Park and the other institutions in the University of Maryland system.

CREATING A HIGH QUALITY TEACHING AND RESEARCH ENVIRONMENT

The quality of a university depends ultimately on the excellence of its faculty and students and on the adequacy of its facilities. These are the indispensable factors that produce the discoveries that change the way we live and that deepen our understanding of ourselves and the world. The campus has recognized the importance of a long-range strategy for improving core departments. It has also identified, and will continue to identify, new program initiatives that offer particular promise. But the recruitment of excellent faculty and the provision of adequate research and teaching facilities is a campus-wide goal.

Competing for Faculty in the Coming Decade

A generation of top scholars was lost forever to our colleges and universities" (M. I. Sovern, *New York Times*). In the 1960s and 1970s a boom-and-bust cycle in American universities caused many promising young people to seek careers

elsewhere. In the coming decade, massive retirements are predicted nationally in the humanities and social sciences, and universities will be forced to compete aggressively for faculty members to replace them. Competition will be even fiercer in the natural and physical sciences, where the National Science Foundation predicts that the nation will produce 400,000 fewer engineers and scientists than it needs by the year 2000, since industry as well as academia will be vying for the shrinking pool of PhD's. Reports by the National Academy of Sciences (*Research Excellence Through the Year 2000*, 1979) and the President's Office of Science and Technology Policy (*Report of the White House Science Council Panel on the Health of U. S. Colleges and Universities*, 1986) stress the urgency of this impending crisis.

Over the past two decades the College Park campus has increased its ability to attract an outstanding faculty, which now includes members of national academies; Pulitzer Prize winners; an impressive number of Presidential Young Investigators and Guggenheim, National Science Foundation, National Endowment for the Humanities, and Sloan fellows; recipients of multi-million dollar competitive research grants; and internationally acclaimed artists and musicians.

But to continue our success and to recruit and retain excellent faculty in the 1990s, extraordinary measures will be necessary. Our faculty salaries, for example, must be more competitive. We currently rank sixth of eleven among our peers in salaries paid to full professors, seventh in salaries paid to associate professors, and tenth in salaries paid to assistant professors. In addition to offering lower salaries than our competitors, we are situated in an area with one of the highest cost of living indices in the country. To compete during the next decade, we must

- raise faculty salaries to at least the 85th percentile of our peer institutions and provide competitive compensation and benefits packages;
- double the funds available for keeping our best faculty from being recruited by other universities;
- increase twofold the number of endowed professorships so as to attract distinguished scholars; and
- establish a multi-million dollar fund to provide research start-up costs to help attract young faculty.

In many disciplines the most intense competition for faculty will involve minorities and women, particularly in fields where they have not been well represented in the past. College Park has made a strong commitment to affirmative action, but at present only 17.3 per cent of its faculty members are women, and only 3.5 per cent are minorities. Although these percentages compare favorably with peer institutions, we can do better, especially given our location near major suburban areas with high minority populations and job opportunities for spouses.

In order to achieve our goal of a more diverse faculty, we will:

- intensify our recruitment of female faculty, particularly in disciplines in which they have

traditionally been underrepresented, in order to increase the percentage of female faculty hired from 28 to 35;

- double the number of black faculty across all departments; and
- monitor tenure and promotion rates for minority and women faculty members.

Improving Our Deteriorating Academic Facilities

American universities are plagued not only with a diminishing pool of outstanding faculty and graduate students, but also with decaying research facilities and inadequate research space. College Park shares the plight of other institutions. The quantity and quality of space represent the most serious obstacle to sustaining, let alone expanding, our scholarly activities. In the humanities, many faculty members do not have private offices in which to pursue research and meet with students. In the creative and performing arts, deplorable conditions in practice rooms and studios, and totally inadequate recital and performance halls, inhibit our creative endeavors and our ability to contribute to the cultural opportunities of the campus and the community. In all of our colleges and professional schools there is a near-total absence of suitable meeting places where scholars can discuss their work with one another. These conditions impede creative and scholarly activity and discourage a spirit of intellectual community.

Similarly, the shortage and obsolescence of laboratory space impede advancement by our scientific research enterprise. The Engineering College serves as a striking example. Not only is it understaffed in comparison to its peers, with about two-thirds the average faculty size and twice the student/faculty ratio; in addition it has to make do with one-half to one-third the space available per faculty member at peer institutions.

As evidence of its concern, the National Science Foundation has recently established the Academic Research Facilities Modernization Program, which will offer facilities support on a competitive basis to universities conducting extensive NSF research. Our proposed initiatives to improve research and teaching facilities will be able to draw on federal funds such as these if our campus is considered a good investment by the agencies concerned. We plan over the next five years:

- a major program to provide 90,000 net assignable square feet of additional office space, 167,000 net assignable square feet of new laboratory space, and 11,000 net assignable square feet of new teaching space (which would still fall 357,000 square feet short of State space planning guidelines);
- full funding for our facilities renewal program designed to modernize existing academic and support facilities, funded annually at 2 per cent of the replacement cost of all state-supported buildings on campus (\$12 million in fiscal year 1990);
- a program to lease space where necessary so that space constraints do not preclude enhancement initiatives;

- an increase in the staffing of the units that supervise renovation and construction of campus facilities; and
- an increase in the staffing of physical plant to reflect the increase in facilities that must be cleaned and maintained.

Rebuilding the Academic Infrastructure

Adequate and appropriate space is essential for research, but in itself it is not sufficient. Researchers require laboratory equipment, research materials, clerical, technical and professional support, and funds for research-related travel. College Park has longstanding and continuing deficiencies to overcome. During the past two years, for example, we have stood in the bottom third of our peers in value of equipment per faculty and in new equipment acquisitions. And although our funding from external grants and contracts has increased 150 per cent since 1980 (from \$32 million to \$82 million) the size of our support staff in key areas—such as personnel, purchasing, and contract and grant accounting—has remained virtually unchanged.

According to the White House Science Council Panel (1986), a minimum of \$10 billion will be required over the next ten years to restore universities' research infrastructure. At the heart of the problem is the rapidly rising cost of laboratory equipment, increasing 50 per cent faster than the consumer price index. Recent federal and state regulations also add to the cost of doing research: institutions must have equipment to assure proper animal care, environmental safety, radiation safety, safety from biochemical hazards, etc. All of these changes, in turn, create personnel needs: for clerical and technical support, equipment purchase, and processing of sponsored research contracts.

These problems are by no means confined to the sciences. The entire campus has pressing needs for support staff and operating funds. Without adequate support, valuable faculty time is diverted to clerical and technical activities. In addition, when staff support and operating funds depend solely on the acquisition of external funding, the campus' research and teaching agenda becomes severely restricted and unduly governed by the availability of federal research dollars.

To address these needs, we plan the following initiatives over the next five years:

- a substantial increase in equipment funds and technical support to research and teaching programs including, for example, new equipment for electronics, microscopy, and animal care, as well as fabrication and materials preparation facilities; and
- an increase in the size of the support staff—not just clerical, but technical and financial as well—to a level that matches the size of the faculty (which would still be below the average faculty/staff ratio at our peer institutions).

Rebuilding Our Libraries

The heart of a great research university is its library, which represents the principal connection with the intellectual past and with contemporary research. The quality of a university is therefore accurately mirrored by its library — by the number and adequacy of its collections, by the accessibility of its holdings, and by its suitability as a working environment.

Research libraries today face two problems. First, the amount of published information is growing at a geometric rate, and in addition the prices of printed materials are rising at double the rate of inflation; no single library can now afford to buy or store complete collections. And second, valuable collections already in place are literally decaying (the average life of a book printed on acid-treated paper is less than 50 years). New technological developments, however, promise to offer some relief. Many institutions are actively involved in preservation, spurred by a program funded by the National Endowment for the Humanities that seeks to save the nation's great repositories of knowledge. Optical laser disk technology and high-performance communication networks provide new possibilities for storage, retrieval and information sharing. But these technologically-based solutions are costly and require major changes in the way libraries operate.

The College Park library faces all of these dilemmas and opportunities, and suffers further from many years of neglect. Despite the fact that our system serves as the principal research library for institutions of higher education throughout the State of Maryland, it is the most poorly funded university library of all its peers (*Middle States Report*, 1987). Not only are we deficient in acquisition of materials, but staff shortages delay cataloging and processing even those materials that are purchased.

Campus budget requests for the past several years have identified the libraries as an essential priority, and some progress has been made, including a major addition to McKeldin Library that is currently under construction, development of a materials preservation program, enhancement of key collections, and adoption of new information technologies. Our further enhancement initiatives include:

- increasing staff and acquisition budgets so that collections can be improved generally, and premier collections developed in disciplines identified as campus priorities;
- collecting scholarly materials in a rich diversity of media, including machine-readable formats and non-print collections;
- enhancing the library's preservation program;
- expanding network access to university databases and machine-readable collections so that our libraries can serve as the State's primary resource for scholarly information, and can avoid unnecessary duplication of holdings;
- acquiring and developing new storage and retrieval systems, including optical disk

technology, to improve access to library collections; and

- enhancing the ambience of physical facilities to create a modern research library that will be a scholarly center of national significance.

Keeping Pace with the Computer Revolution

Computers have become a fundamental tool for nearly all scholars. Numerical analysis by scientists and engineers and statistical analysis and data processing by social scientists are the most obvious uses. In addition, powerful new computer applications offer advanced graphics and imaging as well as sophisticated image and text storage and retrieval.

During the past several years the campus has attained a significant degree of excellence in academic computing. This has been achieved largely by careful leveraging of external resources, such as third-party vendor donations and federal grants and contracts. The campus has become a leader in applying sophisticated "high-end" computing solutions to science, engineering, and economics. We are a member of the leading computing consortia in higher education, sponsored by such vendors as IBM, Apple, DEC, Sun Micro-systems, and NeXT. Additionally, the campus is currently managing the largest of the national research networks sponsored by the National Science Foundation. As evidence of our accomplishments, College Park was chosen to showcase its computing achievements as host institution for EDUCOM '88, the nation's largest and most influential academic computing conference.

We are, however, a long way from being able to offer the entire campus unrestricted access to state-of-the-art computing. Increasingly, limitations in computing hardware and user support adversely affect our ability to recruit students and faculty. Currently only one workstation per 44 students is available (the average for our peers is one to eleven) and only one per five faculty members. Besides distributing computing more broadly around the campus, we must meet the needs of our high-end users. Supercomputing is essential to many engineering and scientific disciplines, and access has become increasingly expensive.

Appropriate computing enhancement will require the following actions:

- providing one workstation (with associated hardware, software, printers, maintenance and support services) for each faculty member, and one for every 20 students (with a long-range commitment to provide one for every ten students);

- developing multi-media teaching theaters, together with faculty support centers in which computer-based lectures can be prepared;
- increasing the number of on-line databases, reference tools, and bibliographies, and improving access to them, including links to the library system; and
- improving scientific computing by providing access to supercomputer and high-quality graphics facilities.

College Park's continued excellence in the sciences and engineering, and continued growth in the social sciences, humanities, and professional schools, will depend in large part on our ability to provide facilities such as these.

Accountability

It is impossible to set quantifiable criteria for the general prestige that a great university enjoys, but as evidence of our growing national and international reputation, we anticipate that during the next five years

- our academic departments will rise in the nationwide rankings that are periodically published by national academies;
- faculty invitations to join national committees, academies and honor societies will increase, including service on such organizations as the Council of Economic Advisers, the Fulbright Commission, and the National Science Board;
- the campus total of competitive research grants will increase — if the necessary space becomes available — from \$82 million to \$100 million; and
- income from licenses, royalties, and technology development contracts will triple.

CHAPTER 3: SERVING THE STATE AS A LAND GRANT INSTITUTION FOR THE TWENTY-FIRST CENTURY

Land grant universities have always had a special relationship with the people, industries, and governments of their regions" (Moos, *The Post Land Grant University*). They are engines of economic development and technological progress for their states, provide a major impetus for the development of public school systems, and represent a significant force in improving the quality of life. The University of Maryland at College Park is a land and sea grant institution, committed to serving our fellow citizens in all of these areas.

Where we are strong in scholarship, we can contribute most in service, and the enhancement initiatives described below represent a second dimension to the research initiatives already presented. This continuity strengthens both.

Our public service goals are to:

- use new technology in science and information management to address the changing problems of Maryland's agriculture;
- enhance our current role as a partner in State economic development and technological progress;
- help improve the quality of teaching and curriculum in the public schools and address particular educational problems in the urban environment;
- provide assistance to State agencies and local communities on a wide variety of technical and policy issues; and
- improve the quality of life of Maryland's citizens by expanding cultural and intellectual programs of broad interest and by providing a wide range of social support services.

ADDRESSING AGRICULTURAL AND ENVIRONMENTAL PROBLEMS

Even as the size of the agricultural sector has declined nationwide, land use problems have continued to grow, making university research and outreach more important than ever. The economic plight of farmers and fishermen, and a recognition of their relationship to the quality of the environment, make research in agricultural and environmental issues critical. Most immediately, our activities in these areas seek to improve the health of the Chesapeake Bay as well as the quality of rural and urban environments.

Even in traditional areas of agriculture, the university's role is growing and changing. The revolution in molecular and cellular biology has redirected research in hybridization, breeding, and pest management. Additionally, the explosion in information management, retrieval and dissemination is revolutionizing the way in which the land grant

university can deliver information to its constituents. Today approximately one hundred Cooperative Extension Service faculty, together with agents in 23 county offices and in the city of Baltimore, provide assistance for the immediate benefit of Maryland's agricultural and fisheries economies.

The following are examples of ways in which our proposed research efforts will enhance our ability to serve the needs of the State:

- expansion of our research facilities in entomology and integrated pest management, with special focus on issues of importance to Maryland agriculture;
- enhancement of an interdisciplinary effort emphasizing water quality and conservation, with particular attention to the interaction between agricultural runoff, the region's groundwater, and the Chesapeake Bay; and
- the development of a center for agricultural export and trade policy that will focus on Maryland agricultural products.

PROMOTING ECONOMIC DEVELOPMENT

The best economic development partner a state can have is a great university, as is illustrated by the highly visible achievements of the Route 128 high-technology belt surrounding Boston, the Princeton-New Brunswick corridor in New Jersey, and the Research Triangle in North Carolina. At College Park, the Engineering Research Center (ERC) is a significant mechanism of technology transfer from academic departments in the applied sciences to Maryland's business and industrial sectors. Established just five years ago, the ERC has already contributed toward developing existing industry and stimulating the creation of new "infant" industries in the State. A new program, Maryland Industrial Partnerships, stimulates technical innovation and enterprise by providing State matching-fund grants for university-industry research partnerships. Another branch of the ERC, the Technology Advancement Program (TAP), provides on-campus "incubator" facilities and support services for more than fifty fledgling Maryland businesses.

The Systems Research Center is yet another example of successful collaboration between College Park and the private sector. Founded in 1985 in cooperation with Harvard University on the basis of a \$16 million five-year grant from the National Science Foundation, the SRC has recently had its NSF funding raised to \$21.3 million to encourage further university-industry research in artificial intelligence, advanced automation, and computer systems design.

As enhancement in this area, we propose to:

- increase the number of start-up companies that can be aided, by expanding the Maryland Industrial Partnerships program to a \$6 million operation and by doubling the size of the "incubator" program; and
- accelerate technology transfer between university researchers and Maryland industry by expanding our technology liaison activities, which assist researchers in obtaining patents, licenses, and development contracts.

The decline in the competitive position of U. S. industry relative to the rest of the world transcends issues of technological innovation. There exists a need for new leaders in the business sector who combine strong technical knowledge with broad management expertise. The College of Business and Management, working in cooperation with the College of Engineering, has developed significant initiatives in this area. The Maryland Center for Quality and Productivity and the Michael Dingman Center for Entrepreneurship provide training and business assistance, the latter focusing on technology-based emerging growth companies. The Small Business Development Center supports more than forty small businesses each year. And more than one thousand managers benefit annually from the Center for Management Development's continuing programs.

In this area of our enhancement efforts, we plan to:

- establish a set of core teaching programs at the University's Shady Grove center, offering advanced instruction and meeting the needs of the region's professional community in the fields of engineering, business and management and computer science;
- expand the Dingman Center to offer new graduate and undergraduate programs in entrepreneurship and venture management, to develop special research programs in corporate innovation and entrepreneurship, to provide special technical assistance to fast-growth high technology companies in Maryland, and to provide training programs and workshops for emerging growth companies in the State and the region; and
- develop a public service arm of the Center of Excellence in Manufacturing that will participate in the statewide initiative to advance manufacturing in Maryland.

IMPROVING PUBLIC SCHOOL EDUCATION

Historically, land grant universities have trained our primary and secondary school teachers, and have worked for better schools and im-

provements in curriculum. At a time when half of the nation's mathematics and science teachers are not certified to teach in these areas and when international test comparisons reveal our students to be sadly disadvantaged, this responsibility is more important than ever.

Besides its traditional role of educating Maryland's future teachers, the College Park campus sponsors cooperative programs with Maryland high schools to improve the skills of practicing teachers. Particular emphasis is given to mathematics and science teaching, although new programs have been developed in English and literature as well.

Under the aegis of the Task Force on School/University Cooperation, the campus has expanded working relations with State educational agencies and has created partnership projects with county school systems, magnet schools and high schools. As an example, the campus has experimented with a Teaching Associates program, inviting Maryland high school teachers to spend a semester in residence. The teachers benefit from exposure to the latest developments in their fields; the campus benefits from their practical experience and from the valuable connections it forms with the public school systems.

Our enhancement initiatives in public education emphasize what we believe to be the most critical issues today: the grave deficiencies in mathematics and science teaching, and the complex problems of urban schools. These initiatives include:

- a science outreach effort through instructional television links to high schools, summer programs for high school and junior high school students, and an expanded program to bring high school teachers to campus as teaching associates; and
- expansion of our programs in Baltimore that address the critical issues of education in an urban setting, with emphasis on problems in special education: the disproportionate numbers of minorities identified (often wrongly) as handicapped or learning disabled, the absence of parental and community involvement, and difficulties in recruiting and retaining teachers.

ASSISTING STATE GOVERNMENT AND LOCAL COMMUNITIES

As a key source of State intellectual and technical talent, we have an important role in providing assistance to State government agencies.

Many faculty members at College Park are nationally and internationally recognized for expertise in key policy issues that face the State, such as public finance, local and regional economics, tax policy, environmental economics, and criminal justice. College Park programs make a difference for local governments as well. One example is the Maryland Fire and Rescue Institute (MFRI) which assumes responsibility for the bulk of fire and rescue training for the entire State, and has trained over 10,000 volunteers and professionals in fire fighting and rescue techniques.

To assist in delivering expertise and services to State and local governments, and to improve the quality of information that reaches the general public, the campus will

- develop a Maryland policy analysis group consisting of experts in economics, history, government and politics, public affairs, and criminology, so that the campus can provide timely and expert advice to local, regional and state agencies;
- establish student-staffed news bureaus in Annapolis and Washington to serve newspapers and broadcast stations in Maryland that lack permanent staff in those cities; and
- recruit an expanded MFRI faculty to provide research in innovative fire and rescue techniques, and to design instructional programs that are compatible with new national professional standards.

IMPROVING COMMUNITY OUTREACH

Many of America's great public universities are located in towns whose names have become synonymous with a stimulating intellectual and cultural environment. The universities at Ann Arbor, Chapel Hill, Berkeley, Madison, and Austin have invigorated their communities by providing cultural activities of many kinds: lectures, symposia, dramatic performances, recitals, quality films, and art exhibitions. Since quality of life implies social involvement as well as cultural enrichment, these universities also provide an array of social support services.

We would like the name "College Park" to bring the same picture to mind. In the past decade the campus has matured both as a source of social services and as an important cultural resource for the State. Our academic programs have strong links to area centers of learning and culture, including the

National Gallery of Art, the Folger Shakespeare Library, the Baltimore Museum of Art, the Kennedy Center, the National Archives, the Maryland Academy of Sciences, the Library of Congress, the Baltimore Aquarium, and the Smithsonian Institution. The campus frequently sponsors conferences, seminars and outreach programs with these organizations. In addition, the Art Gallery mounts exhibitions and brings traveling ones to campus. Theater and Dance offer productions of professional quality; the department of Music sponsors the internationally acclaimed University of Maryland Chorus and Handel Festival, and the Office of Summer Programs sponsors the University of Maryland International Piano Festival and William Kapell Competition, and the National Orchestral Institute.

Besides these cultural activities, the campus also provides badly needed social support services to the community. For example, the Counseling Center operates an extensive program of psychological assistance to troubled youth, families and individual adults; the Hearing and Speech Department runs a public clinic, providing diagnosis and therapy for persons suffering hearing and speech disorders; and the Family Sciences Department offers therapeutic counseling to troubled families.

Through campus enhancement, we intend to:

- intensify efforts to bring the cultural resources of the campus to the citizens of the State, with special emphasis on programs for the public schools;
- improve our social support services for the general public, including expanding the range of services available for the elderly and their families;
- establish an institute of human ecology focusing on research and outreach on topics such as child day care, national health policies, family counseling, and human nutrition; and
- design programming for the new College Park cable TV channel and the campus video distribution system to reach external target constituencies.

CHAPTER 4: CREATING A MODEL ACADEMIC ENTERPRISE

The preceding chapters of this plan have focused on academic programs and on the faculty and students who are most directly involved with them. Beyond its academic programs, a university comprises many other activities and personnel, whose contributions

are absolutely essential to its success. As part of the enhancement of College Park, it is necessary to focus on improvements in the operation of support services and on the quality of life of all the people who work there. Beyond the university extends a still wider community in the general public, par-

ticularly those who are its graduates.

Some aspects of this final chapter have necessarily been touched upon earlier. We focus here on four specific goals:

- increase administrative effectiveness and efficiency;
- recruit and retain a highly qualified, committed and diverse administrative support staff;
- create a sense of community among faculty, staff, students, alumni and friends; and
- foster a strong and supportive association with College Park alumni.

STRENGTHENING OUR COMMITMENT TO ADMINISTRATIVE EFFECTIVENESS

A university is an amazingly diverse administrative and operational entity, with a multiplicity of missions that distinguish it from other state-supported agencies and institutions. For some years now, the American Institute for Certified Public Accountants has recognized this difference and has promulgated a set of accounting, auditing, and reporting principles that are intended for higher education institutions.

With specific reference to College Park, the 1985 external Middle States Review Team recommended substantial changes in the way the campus does business and called for the Board of Regents to appoint a panel of management consultants to develop the concept of the university as an "academic corporation." Such a corporation would be directly responsible for its own operations and administration, and would be held accountable for the services it provides and for the excellence of its instructional, research, and public service programs.

To the extent that it has been possible, we have already instituted changes in our operations, following the recommendations of our own Middle States Self-Study. First, an evaluation process for academic support units has been implemented. This process includes procedures for independent expert reviews of all academic, administrative, student and institutional advancement units, including Motor Vehicles, Purchasing, Personnel, Payroll, Finance, Sponsored Programs, and Physical Plant. These reviews will be used to determine whether support units are meeting the needs of the academic community, and to increase understanding between administrative service providers and users.

Another important change is underway. The campus is in the process of obtaining a new computer-based financial management system to replace the existing outdated system. Once installed, this on-line interactive system will meet the financial management needs of academic departments and campus administrative units as well as the accounting requirements of the State.

Despite the significant progress that has been made, the campus is still constrained in several key areas by State procedures. For example, State purchasing regulations and procedures, introduced in 1981, are so complex that procurements become time-consuming and frustrating exercises of back-and-forth communications between purchasing agents and the requisitioning departments. One unfortunate consequence is that nearly 50 per cent of our paperwork is associated with less than two per cent of the value of our procurements. Similarly, in

the area of personnel, the University Classified System is closely coupled to the State System, which may serve other agencies well but cannot meet the unique requirements of the university environment.

It should be emphasized that the State has shown an increased willingness to respond to our unique needs. For example, last year the University was granted greater control over building design and construction, reflecting the special design issues associated with laboratory and teaching space. Architectural and engineering appointments and contracting and construction supervision have now been delegated to the University. This should reduce the time required to construct and renovate facilities and should greatly improve the quality of construction.

Given the improved governance made possible by Senate Bill 459, we have the opportunity to strengthen our commitment to administrative effectiveness, ensuring that our policies and procedures are shaped by an understanding of our academic environment, mission, and goals. To accomplish this, we plan to:

- propose an appropriate relationship between the campus and the state government which combines increased management flexibility with accountability for the use of State resources;
- streamline administrative procedures, particularly in the areas of purchasing, physical plant, and personnel;
- develop a campus-based personnel system; and enhance administrative computing and communication capabilities by bringing on-line access to all administrative offices.

Accountability

A basic tenet of sound management is that with increased authority comes greater responsibility for accountability. To this end, we plan to

- increase the timeliness with which services are rendered; and
- increase the level of satisfaction of campus users of administrative services, as measured by periodic evaluations.

RECRUITING AND RETAINING SUPPORT STAFF

The campus can discharge its responsibilities as a corporate entity only if it can recruit and retain highly qualified administrative staff. Talented staff are attracted to work environments in which individual initiative is encouraged, creativity is rewarded, and salary and benefits are competitive. We labor at present with a pay scale structure that in effect rewards excellence and mediocrity equally and largely ignores our highly competitive economic environment. An undesirable consequence is that 43 per cent of the campus classified

staff have reached the top of their salary range and cannot be further rewarded for exemplary service, which makes them all too likely to seek employment elsewhere.

There are other factors that affect our ability to retain excellent staff. We must provide a working environment that is characterized by good channels of communication, pleasant working conditions, and sensitivity to the diversity of employee backgrounds. In the past several years, we have begun to address these concerns by developing additional communications media, such as the faculty/staff newsletter Outlook, the campus cable channel, staff award programs and newsletters in individual colleges, and campus-wide convocations and working groups.

Additionally, College Park has demonstrated a strong commitment to affirmative action by strengthening policies and procedures to recruit and retain minority staff. In spite of persistent efforts, however, we have not yet attained the degree of diversity that we desire.

Our enhancement efforts must include continued progress along these lines, appropriately rewarding these members of the community and incorporating them more fully into the life of the institution. We intend to:

- develop a merit pay system for classified employees;
- intensify recruitment of black and other minority staff members across all departments and units;
- monitor internal promotions and job classifications to ensure opportunities for minorities, women, and staff persons with disabilities; and
- improve orientation and in-service training for staff, incorporating a sensitivity to their diversity in backgrounds and needs.

Accountability

Our progress in recruiting a diverse, committed, and supportive administrative staff will be reflected in increased job satisfaction. In addition we expect to:

- reduce the rate of employee turnover; and
- increase the percentage of black and other minority administrative staff from 12.4 to 18.

ENHANCING THE SENSE OF CAMPUS COMMUNITY

A great university should foster a sense of community. It should be socially diverse and inclusive, reaching out to men and women students, faculty, staff, alumni, and friends of different backgrounds, races and cultural heritages, interests and commitments.

The degree to which minorities and women feel welcome on campus depends in large part on the incorporation of their perspectives and contributions into its life. College Park has made significant progress in creating an institutional culture that recognizes and values diversity. Lecture series and cultural events regularly highlight the contributions of minorities and women, including campus-wide activities celebrating Black History Month and Women's History Month. The Office of Human Relations Programs sponsors regular equity training workshops for staff, students and the community. Three broadly representative, presidential-level commissions address the concerns of minorities, people with disabilities, and women. Still, much more can be done to integrate cultural diversity and gender into all our campus programming.

Another means for creating a strong community is the creation of a staff/faculty club, similar to those that exist on most university campuses of our size. Such a facility would become the focal point for intellectual and social exchange among staff members and with visitors, alumni and friends when they come to campus. It would also provide recreational facilities and programs designed to enhance staff productivity through increased health and well-being.

We need, in addition, a means of making visitors welcome on campus. A Visitors' Center could provide a helpful and friendly introduction to the College Park campus.

To improve the quality of life for our diverse campus community we will:

- enhance multicultural events and programs to provide the College Park community with a greater appreciation of the contributions of blacks, other minorities and women to the life of the campus, to Maryland, and to the nation;
- build (with private funds) a faculty/staff club to strengthen the sense of community on campus and to provide a much needed meeting place for staff, faculty, visitors, and alumni; and
- build a visitors' center.

STRENGTHENING ALUMNI RELATIONS AND DEVELOPMENT EFFORTS

Great universities are characterized by close association with their alumni, supportive alumni programs and successful fundraising activities. An important feature of the bill reorganizing higher education in Maryland was the mandate for its individual institutions to assume responsibility for their alumni and development operations. This is a radical departure from the way these activities were structured in the former University of Maryland, and the campus welcomes it.

As a start, the campus has appointed a Director of Alumni Programs and has established a committee of alumni to draft a charter for College Park's own Alumni Association. Plans are underway to create alumni clubs around the State and in other regions of the country. Specific initiatives for the development of our alumni program include the following:

- create a campus center to serve as a focal point for alumni activities;
- develop a cadre of alumni to participate in the recruitment of academically talented students;
- establish alumni clubs throughout the state and in selected locations across the country; and
- publish an alumni magazine.

The College Park campus recognizes that to achieve status as one of the best public universities in the United States, it must develop a successful fundraising capability. To this end, we have reallocated resources and established fund raisers in many of our units. The effect has been dramatic. Cash gifts to the institution have increased from \$6.5 million in 1986 to \$14 million in 1988. We are now preparing to announce a \$100 million five-year capital campaign. Specific initiatives to further enhance our fundraising capabilities include:

- increased staff in the colleges and the campus development office to improve our capability to prepare creative proposals and to build relationships with potential donors;
- expansion of campus public relations and creative services units to support alumni and development programs;
- a communication plan to inform the citizens of Maryland about academic excellence and accomplishment at College Park.

Accountability

Within five years we expect to:

- develop 16 alumni clubs throughout the state;
- increase the number of out-of-state alumni clubs from two to 15;
- increase the number of active College Park alumni from 11,000 to 22,000;
- increase our endowment from \$35 to \$60 million;
- increase the number of endowed chairs and professorships from nine to 20; and
- increase annual expendable funds from private sources from \$11 million to \$30 million.

CONCLUSION

This Enhancement Plan is offered as a significant step in the process of transforming a good university into a great one. It is not the first step; the College Park campus has improved steadily over the past two decades, and in recent years has taken increasing responsibility for planning its future. Much that is included in the document has a long history, the result of devoted work by self-study and priority setting groups. Nor will this plan be the last step, since successful planning is dynamic, evolving over time. The course for the future that it charts commands widespread faculty and administrative support, but it will inevitably be modified as new problems and new opportunities present themselves. Still, it is important to stress that the Plan embodies an integrated picture rather than a shopping list of miscellaneous items. The life of a university is communal and the effectiveness of its programs is synergistic; to modify any one aspect necessarily affects the others, and we are committed to working for the fulfillment of our aspirations across the whole range of our concerns.

Part I of the plan describes what we propose to accomplish; Part II details the cost. In a very real sense this commitment represents a wise and foresighted investment, both in the educational future of our young people and in the economic and cultural well-being of our State. Moreover, it will be an investment that will attract further investment — from private endowment, from partnership with business and industry, and from foundations and federal agencies that seek to enhance the quality of higher education.

In short, the plan reflects the enthusiasm and commitment of our campus community, and it presents detailed proposals through which we intend to bring about change. We have identified scores of specific choices which, if adequately funded, will make a profound difference in the life and distinction of our Campus. To this end, we have specified accountability measures by which our progress can be confirmed. But beyond that, we offer a longer-range vision — extending not just over five years but over the decades to come — of a university that will stand at the forefront of research and creativity, will be sought by the best undergraduate and graduate students, will draw vitality from racial and cultural diversity, and will be an invaluable resource for the State, the region, and the nation. ■